

```
chain nodes :
     45 46 47
                    49 50
                                 51
                                       52
ring nodes:

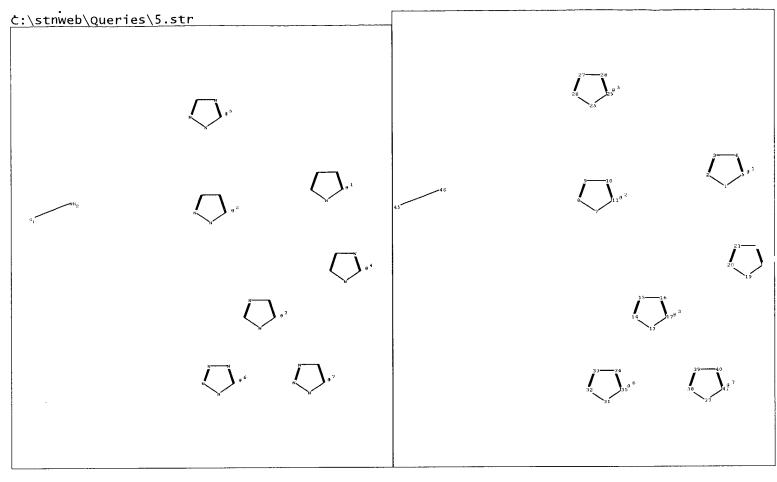
1 2 3 4 5 7 8 9
29 31 32 33 34 35
                                                                  16 17 19 20 21 22 23 25 26 27 28
                                                            15
                                                  13
                                                       14
                                            11
                                       37
                                            38
                                                  39
                                                        40
                                                             41
chain bonds :
     45-46 46-47 47-49 47-50
                                            50-51
ring bonds :
     7-2 1-5 2-3 3-4 4-5 7-8 7-11 8-9 9-10 10-11 13-14 13-17 14-15 15-16 16-17 19-20 19-23 20-21 21-22 22-23 25-26 25-29 26-27 27-28 28-29 31-32 31-35 32-33 33-34 34-35 37-38 37-41 38-39 39-40 40-41
exact/norm bonds :
     1-2 1-5 7-8 7-11 8-9 13-14 13-17 14-15 15-16 19-20 19-23 20-21 21-22 22-23 25-26 25-29 26-27 27-28 28-29 31-32 31-35 32-33 33-34 34-35 37-38 37-41 38-39 39-40 45-46 46-47 47-49 47-50 50-51
exact bonds :
     2-3 3-4 4-5 9-10 10-11 16-17 40-41
isolated ring systems:
     containing 1 : 7 : 13 : 25 : 31 : 37 :
G1:[*1],[*2],[*3],[*4],[*5],[*6],[*7]
```

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 7:Atom 8:Atom 9:Atom 10:CLASS 11:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 19:Atom 20:Atom 21:Atom 22:Atom 23:Atom 25:Atom 26:Atom 27:Atom 28:Atom 29:Atom 31:Atom 32:Atom 33:Atom 34:Atom 35:Atom 37:Atom 38:Atom 39:Atom 40:Atom 41:Atom 45:CLASS 46:CLASS 47:CLASS 49:CLASS 50:CLASS 51:Atom 52:Atom

G2:0,5

Match level

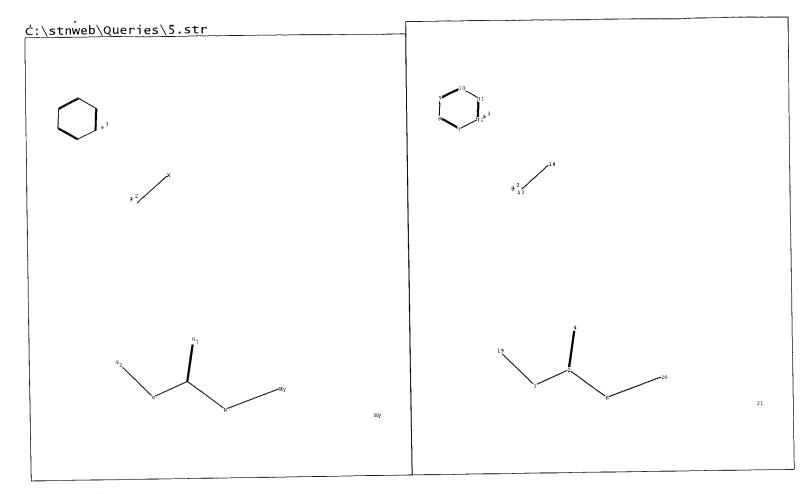
•	•			



```
chain nodes :
     45 46
ring nodes :
     1 2 3 4 5 7 8 9
29 31 32 33 34 35
                                                                     16 17 19 20 21 22 23 25 26 27 28
                                                         14
                                                               15
                                                   13
                                       10
                                              11
                                        37
                                              38
                                                    39
                                                          40
                                                               41
chain bonds :
     45-46
ring bonds :
     1-2 1-5 2-3 3-4 4-5 7-8 7-11 8-9 9-10 10-11 13-14 13-17 14-15 15-16 16-17 19-20 19-23 20-21 21-22 22-23 25-26 25-29 26-27 27-28 28-29 31-32 31-35 32-33 33-34 34-35 37-38 37-41 38-39 39-40 40-41
     1-2 1-5 7-8 7-11 8-9 13-14 13-17 14-15 15-16 19-20 19-23 20-21 21-22 22-23 25-26 25-29 26-27 27-28 28-29 31-32 31-35 32-33 33-34 34-35 37-38 37-41 38-39 39-40 45-46
exact/norm bonds :
exact bonds :
     2-3 3-4 4-5 9-10 10-11 16-17 40-41
isolated ring systems:
containing 1 : 7 : 13 : 25 : 31 : 37 :
```

G1: [*1], [*2], [*3], [*4], [*5], [*6], [*7]

```
Match level :
           1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 7:Atom 8:Atom 9:Atom 10:CLASS 11:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 19:Atom 20:Atom 21:Atom 22:Atom 23:Atom 25:Atom 26:Atom 27:Atom 28:Atom 29:Atom 31:Atom 32:Atom 33:Atom 34:Atom 35:Atom 37:Atom 38:Atom 39:Atom 40:Atom 41:Atom 45:CLASS 46:CLASS
```



```
chain nodes :
    1 2 4 6 13 14 19 20 21
ring nodes :
    7 8 9 10 11 12
chain bonds :
    1-2 1-19 2-4 2-6 6-20 13-14
ring bonds :
    7-8 7-12 8-9 9-10 10-11 11-12
exact/norm bonds :
    1-2 1-19 2-4 2-6 6-20
exact bonds :
    13-14
normalized bonds :
    7-8 7-12 8-9 9-10 10-11 11-12
isolated ring systems :
    containing 7 :
```

G2:[*1],[*2]

G1:0,S

Match level:
1:CLASS 2:CLASS 4:CLASS 6:CLASS 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:CLASS 14:CLASS 19:CLASS 20:Atom 21:Atom

* * * * * * * * * Welcome to STN International Web Page URLs for STN Seminar Schedule - N. America NEWS 1 "Ask CAS" for self-help around the clock NEWS PROUSDDR now available on STN NEWS May 10 3 PROUSDDR: One FREE connect hour, per account, in both May NEWS May 19 4 and June 2004 EXTEND option available in structure searching May 12 NEWS Polymer links for the POLYLINK command completed in REGISTRY May 12 NEWS 6 FRFULL now available on STN May 17 7 NEWS May 27 STN User Update to be held June 7 and June 8 at the SLA 2004 NEWS 8 Conference New UPM (Update Code Maximum) field for more efficient patent NEWS 9 May 27 SDIs in CAplus CAplus super roles and document types searchable in REGISTRY NEWS 10 May 27 NEWS 11 May 27 Explore APOLLIT with free connect time in June 2004 NEWS EXPRESS MARCH 31 CURRENT WINDOWS VERSION IS V7.00A, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 26 APRIL 2004 STN Operating Hours Plus Help Desk Availability NEWS HOURS General Internet Information NEWS INTER Welcome Banner and News Items NEWS LOGIN Direct Dial and Telecommunication Network Access to STN NEWS PHONE CAS World Wide Web Site (general information) NEWS WWW

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* * * * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 16:21:26 ON 18 JUN 2004

=> file reg
COST IN U.S. DOLLARS

FULL ESTIMATED COST

SINCE FILE TOTAL ENTRY SESSION 0.21 0.21

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STRUCTURE FILE UPDATES: 17 JUN 2004 HIGHEST RN 694921-36-3 DICTIONARY FILE UPDATES: 17 JUN 2004 HIGHEST RN 694921-36-3

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

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```
=> e isoquinoline/cn
                   ISOQUINOLIN-7-YL TRIFLUOROMETHANESULFONATE/CN
E1
             1
                   ISOQUINOLINAMINE, 1,3-DICHLORO-/CN
E2
             1 --> ISOQUINOLINE/CN
E3
                   ISOQUINOLINE 1-(3-(BENZYLOXY)-4-METHOXYBENZYL)-3,4-DIHYDRO-6
             1
                   -METHOXY-, PICRATE/CN
                   ISOQUINOLINE 1-OXIDOREDUCTASE/CN
             1
E5
                   ISOQUINOLINE 1-OXIDOREDUCTASE (ALPHA SUBUNIT) OXIDOREDUCTASE
             1
E6
                    PROTEIN (RALSTONIA SOLANACEARUM STRAIN GMI1000 GENE IORA2)/
                   ISOQUINOLINE 1-OXIDOREDUCTASE (CHROMOBACTERIUM VIOLACEUM STR
             1
E7
                   AIN ATCC 12472 GENE CV1674)/CN
                   ISOQUINOLINE 1-OXIDOREDUCTASE (PSEUDOMONAS PUTIDA STRAIN KT2
E.8
                   440 GENE PP3947)/CN
                   ISOQUINOLINE 1-OXIDOREDUCTASE (SHEWANELLA ONEIDENSIS STRAIN
E9
                   MR-1 GENE SO3048 BETA SUBUNIT)/CN
                   ISOQUINOLINE 1-OXIDOREDUCTASE (SHEWANELLA ONEIDENSIS STRAIN
E10
                   MR-1 GENE SO3049 ALPHA SUBUNIT)/CN
                   ISOQUINOLINE 1-OXIDOREDUCTASE, ALPHA SUBUNIT (CAULOBACTER CR
E11
                   ESCENTUS GENE CC0022)/CN
                   ISOQUINOLINE 1-OXIDOREDUCTASE, ALPHA SUBUNIT (CAULOBACTER CR
E12
             1
                   ESCENTUS GENE CC2270)/CN
=> s e3
             1 ISOQUINOLINE/CN
=> d 11
     ANSWER 1 OF 1 REGISTRY COPYRIGHT 2004 ACS on STN
L1
     119-65-3 REGISTRY
     Isoquinoline (6CI, 8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
     β-Quinoline
     2-Azanaphthalene
CN
     2-Benzazine
CN
     Benzopyridine
CN
     Benzo[c]pyridine
CN
     NSC 3395
CN
     3D CONCORD
FS
     C9 H7 N
ΜF
      COM, RPS
 CI
                  ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*, BIOBUSINESS,
 LC
        BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN,
        CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, CSNB, DDFU, DETHERM*,
        DIPPR*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2,
        GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, MEDLINE, MRCK*,
        MSDS-OHS, NAPRALERT, NIOSHTIC, PIRA, PROMT, PS, RTECS*, SPECINFO,
        TOXCENTER, TULSA, ULIDAT, USPATZ, USPATFULL
          (*File contains numerically searchable property data)
      Other Sources: DSL**, EINECS**, TSCA**
          (**Enter CHEMLIST File for up-to-date regulatory information)
       CAplus document type: Book; Conference; Dissertation; Journal; Patent;
        Preprint; Report
```

RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study);
MSC (Miscellaneous); PREP (Preparation); PROC (Process); PRP
(Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES

RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

4006 REFERENCES IN FILE CA (1907 TO DATE)

366 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
4012 REFERENCES IN FILE CAPLUS (1907 TO DATE)

9 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> L2 STRUCTURE UPLOADED

=> d 12 L2 HAS NO ANSWERS L2 STR

=> s 12 SAMPLE SEARCH INITIATED 16:34:34 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED - 661 TO ITERATE

100.0% PROCESSED 661 ITERATIONS SEARCH TIME: 00.00.01 2 ANSWERS

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**

PROJECTED ITERATIONS: 11678 TO 14762

PROJECTED ANSWERS: 2 TO 124

L3 2 SEA SSS SAM L2

=> s 12 full
THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 155.00 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y
FULL SEARCH INITIATED 16:34:39 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 13265 TO ITERATE

100.0% PROCESSED 13265 ITERATIONS SEARCH TIME: 00.00.01

43 ANSWERS

L4 43 SEA SSS FUL L2

=> file hcaplus
COST IN U.S. DOLLARS

SINCE FILE TOTAL
ENTRY SESSION
170.44 170.65

FULL ESTIMATED COST

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FILE COVERS 1907 - 18 Jun 2004 VOL 140 ISS 26 FILE LAST UPDATED: 17 Jun 2004 (20040617/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 14/prep

15 L4

3160985 PREP/RL

L5

13 L4/PREP

(L4 (L) PREP/RL)

=> s 15 and tan, Z?/au

1084 TAN, Z?/AU

L6 0 L5 AND TAN, Z?/AU

=> s 15 and song, j?/au

4830 SONG, J?/AU

L7 0 L5 AND SONG, J?/AU

=> file reg

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY SESSION

7.08

177.73

FULL ESTIMATED COST

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STRUCTURE FILE UPDATES: 17 JUN 2004 HIGHEST RN 694921-36-3 DICTIONARY FILE UPDATES: 17 JUN 2004 HIGHEST RN 694921-36-3

49 ANSWERS

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

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=> L8

STRUCTURE UPLOADED

=> d 18

L8 HAS NO ANSWERS

L8

STR

=> s 18

SAMPLE SEARCH INITIATED 16:38:06 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED - 24419 TO ITERATE

1000 ITERATIONS 4.1% PROCESSED INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED) SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **INCOMPLETE**

COMPLETE BATCH

PROJECTED ITERATIONS:

479039 TO 497721

PROJECTED ANSWERS:

21855 TO 26005

49 SEA SSS SAM L8

=> L10

L9

=> d 110

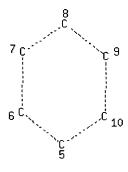
L10 HAS NO ANSWERS

L10

STR

STRUCTURE UPLOADED

0 16 S 17



Page 1-A

```
Page 1-B
Page 2-B
Page 3-A
                                          14 Hy
Page 3-B
Page 4-B
 Hg 15
Page 4-C
VAR G1=16/17
VAR G2=10/11
NODE ATTRIBUTES:
         IS C
NSPEC
                    AT
                         1
NSPEC
         IS C
                    AT
                         2
         IS C
                    TA
                         3
NSPEC
         IS C
                    TA
                         4
NSPEC
                         5
         IS R
                    ΑT
NSPEC
         IS R
                    AT
                         6
NSPEC
                         7
                    AT
NSPEC
         IS R
                         8
                    AT
         IS R
NSPEC
                         9
                    TA
         IS R
NSPEC
         IS R
                    AT
                        10
NSPEC
NSPEC
         IS C
                    AT
                        11
                        12
         IS C
                    AT
NSPEC
                    AT
                        13
         IS C
NSPEC
         IS C
                    ΑT
                        14
NSPEC
 NSPEC
         IS C
                    AT
                        15
 DEFAULT MLEVEL IS ATOM
                              4 11 12 16 17
 MLEVEL IS CLASS
                         1
                   AT
 DEFAULT ECLEVEL IS LIMITED
 GRAPH ATTRIBUTES:
 RSPEC I
```

NUMBER OF NODES IS 17

STEREO ATTRIBUTES: NONE

=> s 110 SAMPLE SEARCH INITIATED 16:41:20 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED - 3872 TO ITERATE

25.8% PROCESSED 1000 ITERATIONS INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED) SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS:

73709 TO 81171

PROJECTED ANSWERS:

286 TO 95

L11 8 SEA SSS SAM L10

=> s 110 full
THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 155.00 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y
FULL SEARCH INITIATED 16:41:24 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 77434 TO ITERATE

100.0% PROCESSED 77434 ITERATIONS

387 ANSWERS

8 ANSWERS

SEARCH TIME: 00.00.02

1.12 387 SEA SSS FUL L10

=> file hcaplus
COST IN U.S. DOLLARS

SINCE FILE TOTAL
ENTRY SESSION
158.36 336.09

FULL ESTIMATED COST

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=> s 112/rct

222 L12 2631689 RCT/RL 69 L12/RCT L13 (L12 (L) RCT/RL)

=> d his

L4

(FILE 'HOME' ENTERED AT 16:21:26 ON 18 JUN 2004)

FILE 'REGISTRY' ENTERED AT 16:21:32 ON 18 JUN 2004 E ISOQUINOLINE/CN

1 S E3 L1 STRUCTURE UPLOADED L22 S L2 L3 43 S L2 FULL

FILE 'HCAPLUS' ENTERED AT 16:34:43 ON 18 JUN 2004

13 S L4/PREP L_5 0 S L5 AND TAN, Z?/AU L6 0 S L5 AND SONG, J?/AU T.7

FILE 'REGISTRY' ENTERED AT 16:36:37 ON 18 JUN 2004

STRUCTURE UPLOADED L8 49 S L8 L9

STRUCTURE UPLOADED L10

8 S L10 L11 387 S L10 FULL L12

FILE 'HCAPLUS' ENTERED AT 16:41:29 ON 18 JUN 2004 69 S L12/RCT L13

=> s 113 and 15 0 L13 AND L5 L14

=> file caold COST IN U.S. DOLLARS

TOTAL SINCE FILE ENTRY SESSION 2.36 338.45

FULL ESTIMATED COST

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FILE COVERS 1907-1966 FILE LAST UPDATED: 01 May 1997 (19970501/UP)

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This file supports REG1stRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

=> d his

```
(FILE 'HOME' ENTERED AT 16:21:26 ON 18 JUN 2004)
    FILE 'REGISTRY' ENTERED AT 16:21:32 ON 18 JUN 2004
               E ISOQUINOLINE/CN
              1 S E3
L1
               STRUCTURE UPLOADED
L2
L3
              2 S L2
             43 S L2 FULL
L4
     FILE 'HCAPLUS' ENTERED AT 16:34:43 ON 18 JUN 2004
             13 S L4/PREP
L5
             0 S L5 AND TAN, Z?/AU
L6
             0 S L5 AND SONG, J?/AU
L7
     FILE 'REGISTRY' ENTERED AT 16:36:37 ON 18 JUN 2004
                STRUCTURE UPLOADED
Г8
             49 S L8
L9
                STRUCTURE UPLOADED
L10
              8 S L10
L11
            387 S L10 FULL
L12
     FILE 'HCAPLUS' ENTERED AT 16:41:29 ON 18 JUN 2004
            69 S L12/RCT
L13
              0 S L13 AND L5
L14
     FILE 'CAOLD' ENTERED AT 16:41:59 ON 18 JUN 2004
=> s 14 and 112
             0 L4
             6 L12
             0 L4 AND L12
L15
```